

narrow black apical bands; tergites 6 and 7 and sternite 8 black; sternites 6 and 7 with a black mid-ventral line. *Hypopygium* yellowish, black at the tip and along the edges of the deep groove of the ninth sternite. Eighth sternite simple. Ninth sternite complicated, its structure not readily discernible; in the mid-ventral line it terminates in a black projection, backwardly directed, bifid at the tip, and deeply grooved beneath. Ninth tergite with a rather shallow V-shaped emargination. *Legs*: front and middle coxæ whitish yellow, hind coxæ orange-yellow. Femora slender, slightly enlarged at the tips, brownish, with black pubescence, which is somewhat longer on the inner and under side of the hind femora. Tibiæ blackish, with distinct white rings at the base. Tarsi blackish. *Wings* strongly brown-tinged, the stigma darker; a rather indistinct whitish band before the stigma extending from near the costa across to the base of the discal cell; whitish streaks in the centres of cells *R*, *M*, *Cu*₁, *Cu*₂, *An*, and *Ax*. *Rs* very little longer than *R*₂₊₃, nearly straight. Cell *M*₁ stalked, the stalk nearly a third as long as the cell. Cell *Cu*₁ rather long, of the same breadth on the wing-margin as cell *Cu*₂. *Halteres* blackish, the apical half of the knob white.

Length of body 12 mm.; antennæ 7 mm.; wing 11 × 3·8 mm.

ASSAM: Khasi Hills (purchased from E. Heyne); 1 ♂.

This species is very distinct from all others in the British Museum on account of the length and slenderness of the antennæ, shown particularly in the first flagellar joint. It is probably closely allied to *P. flavofasciata*, Brun., while the distinct stalk to cell *M*₁ and the slender hind femora may indicate a distant connection with *P. leta*, F., and *P. taprobanes*, Walk.

XLIV.—Two remarkable new Ruteline Beetles from Indo-China. By GILBERT J. ARROW, F.Z.S., F.E.S.

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[Plate X.]

THE very remarkable group of Rutelinæ the males of which have the mandibles greatly developed, as in the stag-beetles, appears to have its headquarters in Indo-China, whence a large proportion of the known species have been brought.

The genus *Peperonota*, belonging to the group, has not enlarged mandibles, but the male has instead an extraordinary prolongation of the hind margin of the pronotum. In a second species of *Didrepanephorus* here recorded there is a strange backward-pointing spike upon the metasternum, in addition to the sickle-like mandibles. This is certainly also a feature peculiar to the male. On the other hand, I described in 1889 a species of the related genus *Parastasia* (*P. mirabilis*) in which the female is characterized by the possession of a sternal process absent in the male. This is also the case, in a less marked degree, in *P. sulcipennis*, Gestro.

Both the insects here described have been discovered by M. R. Vitalis de Salvaza. The types are in the British Museum, which is indebted to this collector for so many interesting species from the same region.

Didrepanephorus mucronatus, sp. n.
(Pl. X. fig. 2.)

Ferrugineus, capite et mandibulis nigris; breviter ovatus, totus fulvo-velutinus, scutello et elytrorum partibus posticis brunneis, horum margine apicali pallido: ♂, mandibulis porrectis, falcatis, extrorsum et sursum versus arcuatis, supra dente basali lato, apice acuto et curvato, munitis; pronoto dorso utrinque penicillato, lateribus medio fortiter angulatis, angulisque posticis paulo productis; metasterni medio mucro compresso oblique retrorsum producto munito; pedibus robustis.

Long. (mandibulis exclusis) 21 mm.; lat. 11 mm.

Indo-China: Laos (*R. Vitalis de Salvaza*, May).

I have seen only a single male specimen. The most striking differential feature of the species is the strong pointed process directed obliquely backward from the middle of the metasternum near its hind margin. This is represented in *D. bifalcifer* (Pl. X. fig. 1) by a very slight longitudinal keel, which is absent in the female, so that the remarkable spike of the present insect is no doubt peculiar to the male. It also differs from *D. bifalcifer* in the stronger and more uniform curvature of the mandibles, which, although shorter in the type-specimen than in that of the allied form, have a larger tooth near the base. In addition, the eyes are rather larger, the prothorax is more strongly angulated on each side, and both the front and hind angles are sharper. The thick velvety pile with which the body is clothed above is much longer on each side of the middle of the pronotum, where erect tufts are formed. The scutellum and elytra are clothed

with soft pile, a little darker upon the former and towards the end of the latter, and paler at the hind margins of the elytra, exactly as in the other species, but the elytra are a little more strongly punctured and the pygidium and lower surface are rather less thickly pubescent. The legs are stouter, the hind tibiæ in particular distinctly broader, and the middle and hind tarsi have the four basal joints shorter and the claw-joint longer. The mandibles are curved outwards as well as upwards, forming a crescent when opened, and taper more evenly from base to tip. The upper edge bears at the base a laminar tooth larger than that of *D. bifalcifer*, broad at the base, a little curved and acutely pointed.

Peperonota vitalisi, sp. n.
(Pl. X. fig. 4.)

Brunnea, capite areaque scutellari nigris, pronoto femoribusque plerumque fulvis, compacta, convexa, corpore supra nudo, subtus fulvo-setoso :

♂, capite grosse punctato-rugoso, a fronte sulco transverso diviso, margine antico sat late reflexo, postice mutico, pronoto polito, minuto et sparse punctato, parte posteriore medio longe producta ; elytris opacis, parte brevi circumscutellari depressa, nitida, grosse punctata, segmento penultimo ventrali postice latitudine toto carinato :

♀, corpore supra nitido, clypeo bidentato, scutello triangulari, haud brevi, bene punctato, elytrorum margine laterali post medium calloso, pygidio lævi, opaco, subtiliter coriaceo.

Long. 17-24 mm. ; lat. 10-13 mm.

Indo-China: Upper Mekong R., Nam Mat (*R. Vitalis de Salvaza*, April).

In 1917 I described a second species of this remarkable genus (*P. cristata*) from Burma. The Indo-Chinese form proves to be yet another closely related species. In size, colouring, and general appearance it is exactly like *P. harringtoni*, Westwood (from Sikkim, etc.) (Pl. X. fig. 3), but the depressed area adjoining the scutellum in the male is shorter, as in *P. cristata*, the clypeus is a little larger, its tip is more broadly elevated than in *P. harringtoni*, the two posterior tubercles of that species are entirely absent, leaving only a transverse impression, and the forehead behind the latter is more rugose. The emargination of the last ventral segment in the same sex is less strongly asymmetrical, and the pen-

ultimate segment has its entire hinder edge carinate, but is without the sharply limited short carina found in the other two species.

The female is like that of the typical species, except that the elytra are rather more shining and have a well-marked callosity beyond the middle of the outer margin, the scutellum is a little longer, more pointed, and more punctured, and the pygidium is more even and very finely coriaceous, like the last ventral segment.

The colouring is no doubt rather variable in this species, as in *P. harringtoni*. Several specimens have been sent by the discoverer.

XLV. — *New Foxes of the Genera Cerdocyon and Pseudalopez from Northern Argentina.* By OLDFIELD THOMAS.

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IN the course of his explorations Sr. Budin has sent home seven foxes from Northern Argentina, four being members of *Cerdocyon* and three of *Pseudalopez*. The former are referable to two definable forms—both new,—respectively from Tucuman and Jujuy, while of the latter two specimens are the common *P. gracilis*, Burm., while a little fox from Chumbicha, Catamarca, seems again to represent a new species.

The following cranial differences between *Cerdocyon* and *Pseudalopez* may be worth mentioning here:—

If the lower jaw be put in position, the premolars, upper and lower, closely touch or overlap in *Cerdocyon*, but in *Pseudalopez* they remain always some distance apart.

On laying the skulls on a flat surface, jaw in position, that of *Cerdocyon* stands with the tooth-row horizontal, and the back of the skull as well as the mandibular angle high off the supporting surface; but that of *Pseudalopez* lies backwards, the tooth-row at a considerable angle with the horizon, the bullæ and condyles nearly, and the mandibular angle quite, touching the support.